ART 34 AMDT

CLAIMS

1/ An observation device comprising a primary mirror (1) that is parabolic or nearly parabolic, secondary reflection means (2) situated between the primary mirror (1) and its focus, and tertiary reflection means (4a, 4b; 5a, 5b; 7a, 7b; 8) which are disposed relative to the primary mirror (1) on its side opposite from the side on which the secondary reflection means (2) are disposed, the secondary reflection means (2) reflecting light beams that are received by the primary mirror (1), the primary mirror (1) being suitable for passing the light beams reflected in this way so as to enable them to reach the tertiary reflection means (4a, 4b; 5a, 5b; 7a, 7b; 8), the device being characterized in that it further comprises image acquisition means (6a, 6b; 9), and in that in order to acquire stereoscopic images, the secondary reflection means comprise a mirror (2) situated on the optical axis of the primary mirror (1) which reflects along two directions that are distinct from the optical axis of the primary mirror (1), the light beams that are received by the primary mirror (1) along two directions of incidence that are also distinct from its optical axis, the tertiary reflection means (4a, 4b; 5a, 5b; 7a, 7b; 8) comprising means for focusing the light beams they receive along said two directions onto the image acquisition means (6a, 6b; 9).

2/ A device according to claim 1, characterized in that the secondary mirror (2) is adapted to reflect symmetrically about the optical axis the optical beams which reach the primary mirror (1) along two directions of incidence that are symmetrical about the optical axis.

3/ A device according to claim 2, characterized in that the tertiary reflection means comprise two plane mirrors (4a, 4b) placed symmetrically on either side of the direction of the optical axis of the primary mirror (1), together with two concave mirrors (5a, 5b) also disposed

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symmetrically about said direction, the plane mirrors (4a, 4b) reflecting onto the concave mirrors (5a, 5b) the light beams which come from the secondary mirror (2) along the two directions that are distinct from the direction of the optical axis of the primary mirror (1), the concave mirrors reflecting the beams they receive so as to focus them on the acquisition means (6a, 6b).

4/ A device according to claim 2, characterized in that the tertiary reflection means comprise two concave mirrors (7a, 7b) which are disposed symmetrically on either side of the direction of the optical axis of the primary mirror (1) and which reflect the light beams which arrive from the secondary mirror (2) along the two directions distinct from the direction of the optical axis of the primary mirror (1), together with a plane mirror (8) which is common to both paths and which is centered on the direction of the optical axis, extending perpendicularly to said direction, said plane mirror (8) reflecting the beams it receives onto the acquisition means situated on a focal plane common to both paths.

5/ A device according to claim 2, characterized in that the primary mirror (1) includes a central hole through which the secondary mirror (2) reflects light.

6/ A device according to claim 5, characterized in that the secondary mirror (2) focuses two intermediate images at the level of the primary mirror (1), with the two light beams they reflect corresponding to the two observed directions of incidence.

7/ A stereoscopic observation system comprising a satellite and stereoscopic image acquisition means, characterized in that said means comprise a device according to any preceding claim.